THOROUGHNESS OF SURVEY FOR COMMON BARBERRY

By F. E. Kempton

In surveys for eradicating all common barberries thoroughness means searching out and killing the last barberry bush, sprout, and seedling in the area designated for survey.

The methods of survey and of eradication have been modified and improved from time to time as new facts have become known.

The visiting of the many thousands of properties in the 13 States of the eradication area is by no means a small undertaking. The inspection of every one of these properties in such a manner that every barberry bush, seedling, and sprout is found and destroyed becomes a tremendous task.

This campaign of eradication was begun with little real knowledge of the distribution and abundance of the common barberry in these 13 States. It was known that this shrub had been transported westward from New England by settlers and that both the green and purple varieties had been sold and planted as ornamental shrubbery. Numerous hedges and single bushes had been observed in cities, towns, and on large estates. The occasional spread of common barberries to waste lands had been recorded.

With this rather meager knowledge, methods of survey naturally were not planned with the same ideas of thoroughness that are demanded after eight years of experience in searching out and eradicating this pest.

In the eradication area there are many types of city and small-town properties, large estates, large and small farms, and ranches. On any of these at one time or another common barberry may have been planted. There are numerous woodlands, forests, planted woodlots and wind breaks, wooded banks of streams, shores of lakes, brushy pastures, and hillsides, to which common barberry bushes or seedlings may have escaped from cultivated common barberry bushes fruiting on near-by properties.

Naturally, the greater number of cultivated barberry bushes and those escaped from cultivation have been found in the older settled areas where shrubbery grows readily. However, common barberry bushes have been scattered into almost every county of the 13 States. To find all of these bushes requires systematic and conscientious effort.

As the types of properties and the attending conditions vary so greatly, the State leader in each State must use careful judgment in supervising the surveys. He in turn must allow the squad leader and the field men some latitude in deciding the manner of conducting the survey of each type of area and property. This range of judgment must not be too wide.

Training a changing personnel so that all properties will be uniformly well surveyed is a large part of the task. Thorough survey and eradication depend largely upon the selection, instruction, and training of field men. Uniform thoroughness of survey must be stressed continually.

The State leaders, squad leaders, and field men may be better able to accomplish uniformly thorough surveys by answering the following questions.

GENERAL QUESTIONS

When sending men into the field, the State leader should ask himself these questions:

1. Has the squad leader been informed of all the known facts concerning the history of barberries and stem rust in an assigned area?

2. Have all the squad leaders and field men a uniform and clear idea of how given types of territory should be surveyed?

SURVEY QUESTIONS

A. As the field man enters a property and surveys it he should ask himself these questions:

1. Is each property being approached as a possible hiding place of one or several common barberry bushes?

2. Has the property owner or occupant been made familiar with the purpose of the work and the reasons for careful survey of the property? Has his support been enlisted?

3. For every farm visited has information been ascertained as to whether or not stem-rust losses ever have been experienced?

4. If rust has occurred, were the losses greater than on near-by farms?

5. Have there been common barberry bushes on this property or on neighboring properties in the past? If so, have they been fruiting bushes and were records made of their location?

6. Is this property part of or near an area of escapes?

7. Are there farm buildings or abandoned building sites on this farm near which shrubbery may have been planted?

8. Do the grasses or grains indicate early infection from stem rust?

B. Before leaving the property these questions should be answered:

1. Has every nook and corner of the yard, garden, orchard, and other parts of the farmstead been inspected for barberry bushes, cut-off crowns of old bushes, sprouts, and seedlings?

2. Has every woodlot, fence row, stream bank, pasture, etc., been as carefully inspected as the conditions warrant?

3. Has the situation been correctly summed up and the proper inspection made for that area and the property?

4. Is the property owner or occupant satisfied that a thorough survey has been made?

5. Have complete records been made, including maps?

6. Have the bushes been eradicated and how? If not killed, what arrangements have been made for eradication?

7. Can the property be certified as clear?

ERADICATION QUESTIONS

After survey and eradication the following questions are in order:

1. Has every bush been carefully treated or otherwise completely eradicated?

2. Has every seedling been foundand destroyed?

3. Large seedlings may be broken off in attempts to pull them. If so, were they treated?

4. Have adequate records been made so that future resurveys and eradication of new seedlings can be easily and efficiently carried out?

5. How soon should this property be revisited?

6. Do the number of seedlings and scattered seeds indicate that this property should be inspected regularly for a long period of years?

7. Have all fruits from fruiting bushes been destroyed?

8. Have you obtained the cooperation of the occupant of the property to the end that he is interested and informed so that he can recognize barberry bushes and seedlings and will aid in resurveys by keeping constant watch for seedlings and sprouts and destroying them by recommended methods?

QUESTIONS CONCERNING SURVEY OF AREAS OF ESCAPES

Each area of escapes large or small is a special problem. Not only the questions covered in the survey and eradication should be considered but these additional ones:

1. Has complete cooperation of all interested persons in the area been obtained?

2. Have the sources of the spread of seeds been determined and eliminated?

3. Has an idea been formed of the places to which birds may go for water or to roost?

4. Has an outline map of the area been prepared?

5. Have the outer limits of the spre ad of bushes and the possible limits of spread of seeds been determined and mapped?

6. Has the exact location of bushes and seedlings been recorded on the map as the survey of the area has progressed?

7. Has inspection been made beyond the limit of spread to insure that there is not a clear area beyond which more escapes have spread?

8. Have adequate notes been made for complete eradication and for re-inspections?

9. Have arrangements been made for chemicals, their transportation, and application?

10. Have eradication or treatment been completed?

11. Have the property owners been instructed so that they will aid in resurveys and help effect a complete clean-up of the area?

While these questions are particularly applicable to the survey, they may be used in connection with any survey or in making reinspections.